

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re International Application of

Yukihiko OKUMURA, Hidehiro ANDO, Masafumi USUDA,  
Yoshihiro ISHIKAWA and Seizo ONOE

International Application No.: PCT/JP00/02105

International filing date: March 31, 2000

For: CHANNEL ESTIMATION DEVICE AND METHOD, DEMODULATION DEVICE AND  
METHOD, AND FADING FREQUENCY DECISION DEVICE AND METHODVERIFICATION OF TRANSLATION

Honorable Commissioner of Patent and Trademark

Washington, D.C. 20231

Sir:

Masashi SHINKAI residing at c/o TANI & ABE, No. 6-20, Akasaka  
2-chome, Minato-ku, Tokyo 107-0052, Japan, declares:(1) that he knows well both the Japanese and  
English languages;(2) that he translated the claims of the  
above-identified International Application from Japanese to  
English;(3) that the attached English translation is a  
true and correct translation of the claims, specification and  
drawings of the above-identified International Application  
to the best of his knowledge and belief; and(4) that all statements made of his own knowledge  
are true and that all statements made on information and belief  
are believed to be true, and further that these statements  
are made with the knowledge that willful false statements and  
the like are punishable by fine or imprisonment, or both, under  
18 USC 1001, and that such false statements may jeopardize  
the validity of the application or any patent issuing thereon.

November 20, 2000

Date

M. Shinkai

Masashi SHINKAI

09/70703

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

TANI, Yoshikazu  
No. 6-20, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
JAPON

Date of mailing (day/month/year) 14 November 2000 (14.11.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference PF12317/MS	
International application No. PCT/JP00/02105	International filing date (day/month/year) 31 March 2000 (31.03.00)

## 1. The following indications appeared on record concerning:

☒ the applicant
 ☒ the inventor
 ☐ the agent
 ☐ the common representative

## Name and Address

USUDA, Masashi  
18-11-102, Noukendaideri  
Kanazawa-ku, Yokohama-shi,  
Kanagawa 236-0053  
JapanState of Nationality  
JPState of Residence  
JP

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☒ the name
 ☐ the address
 ☐ the nationality
 ☐ the residence

## Name and Address

USUDA, Masafumi  
18-11-102, Noukendaideri  
Kanazawa-ku, Yokohama-shi,  
Kanagawa 236-0053  
JapanState of Nationality  
JPState of Residence  
JP

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

☒ the receiving Office
 ☒ the designated Offices concerned  
☐ the International Searching Authority
 ☐ the elected Offices concerned  
☐ the International Preliminary Examining Authority
 ☐ other:
The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Sean Taylor

Telephone No.: (41-22) 338.83.38

## PARENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

TANI, Yoshikazu  
No. 6-20, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
JAPONDate of mailing (day/month/year)  
28 June 2000 (28.06.00)Applicant's or agent's file reference  
PF12317/MS

## IMPORTANT NOTIFICATION

International application No.  
PCT/JP00/02105International filing date (day/month/year)  
31 March 2000 (31.03.00)

## 1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

## Name and Address

OKUMURA, Yukihiro  
9-2-3-405, Sugita  
Isogo-ku  
Yokohama-shi  
Kanagawa 235-0033  
Japan  
(applicant and inventor for all designated States)State of Nationality  
JPState of Residence  
JP

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

## Name and Address

OKUMURA, Yukihiro  
9-2-3-405, Sugita  
Isogo-ku  
Yokohama-shi  
Kanagawa 235-0033  
Japan  
(applicant for US and inventor for all designated States)State of Nationality  
JPState of Residence  
JP

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned  
☒ the International Searching Authority ☐ the elected Offices concerned  
☐ the International Preliminary Examining Authority ☐ other:The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Susumu Kubo

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

# PCT COOPERATION TREATY

## PCT

### NOTIFICATION OF RECEIPT OF RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU

To:

TANI, Yoshikazu  
No. 6-20, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
JAPON

Date of mailing (day/month/year) 20 April 2000 (20.04.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference PF12317/MS	International application No. PCT/JP00/02105

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

NTT MOBILE COMMUNICATIONS NETWORK INC. (for all designated States except US)  
OKUMURA, Yukihiro (all designated States)  
ANDO, Hidehiro et al (for US)

International filing date	:	31 March 2000 (31.03.00)
Priority date(s) claimed	:	02 April 1999 (02.04.99) 30 November 1999 (30.11.99) 23 March 2000 (23.03.00)

Date of receipt of the record copy by the International Bureau	:	14 April 2000 (14.04.00)
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List of designated Offices :

EP : AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE  
National : AU,CA,CN,JP,KR,SG,US


### ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- ☒ time limits for entry into the national phase
- ☒ confirmation of precautionary designations
- ☒ requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

<b>The International Bureau of WIPO</b> <b>34, chemin des Colombettes</b> <b>1211 Geneva 20, Switzerland</b>	Authorized officer:  <div style="text-align: right;">Susumu Kubo </div>
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

## PCT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

TANI, Yoshikazu  
No. 6-20, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
JAPON

Date of mailing (day/month/year) 07 June 2000 (07.06.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference PF12317/MS	
International application No. PCT/JP00/02105	International filing date (day/month/year) 31 March 2000 (31.03.00)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 02 April 1999 (02.04.99)
Applicant NTT MOBILE COMMUNICATIONS NETWORK INC. et al	

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
02 Apr 1999 (02.04.99)	11/96804	JP	26 May 2000 (26.05.00)
30 Nove 1999 (30.11.99)	11/340638	JP	26 May 2000 (26.05.00)
23 Marc 2000 (23.03.00)	2000/82929	JP	26 May 2000 (26.05.00)

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Marc Salzman

Telephone No. (41-22) 338.83.38



## PCT

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

TANI, Yoshikazu  
No. 6-20, Akasaka 2-chome  
Minato-ku, Tokyo 107-0052  
JAPON

Date of mailing (day/month/year) 12 October 2000 (12.10.00)		IMPORTANT NOTICE	
Applicant's or agent's file reference PF12317/MS			
International application No. PCT/JP00/02105	International filing date (day/month/year) 31 March 2000 (31.03.00)	Priority date (day/month/year) 02 April 1999 (02.04.99)	
Applicant NTT MOBILE COMMUNICATIONS NETWORK INC. et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AU,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
CA,CN,EP,JP,SG

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on  
12 October 2000 (12.10.00) under No. WO 00/60761

**REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)**

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

**REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))**

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer J. Zahra Telephone No. (41-22) 338.83.38
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## 特許協力条約に基づく国際出願願書

PF12317/MS

原本（出願用） - 印刷日時 2000年03月31日（31.03.2000）金曜日 16時05分51秒

0	受理官庁記入欄	
0-1	国際出願番号.	
0-2	国際出願日	
0-3	(受付印)	
0-4	様式-PCT/R0/101 この特許協力条約に基づく国際出願願書は、 右記によって作成された。	PCT-EASY Version 2.90 (updated 08.03.2000)
0-5	申立て 出願人は、この国際出願が特許協力条約に従って処理されることを請求する。	
0-6	出願人によって指定された受理官庁	日本国特許庁 (R0/JP)
0-7	出願人又は代理人の書類記号	PF12317/MS
I	発明の名称	チャネル推定装置および方法、復調装置および方法、 ならびにフェージング周波数判定装置および方法
II	出願人	出願人である (applicant only)
II-1	この欄に記載した者は	米国を除くすべての指定国 (all designated States except US)
II-2	右の指定国についての出願人である。	エヌ・ティ・ティ移動通信網株式会社 NTT MOBILE COMMUNICATIONS NETWORK INC. 100-6150 日本国 東京都 千代田区 永田町2丁目11番1号 11-1, Nagatacho 2-chome Chiyoda-ku, Tokyo 100-6150 Japan
II-4ja	名称	
II-4en	Name	
II-5ja	あて名:	
II-5en	Address:	
II-6	国籍 (国名)	日本国 JP
II-7	住所 (国名)	日本国 JP
III-I	その他の出願人又は発明者	出願人及び発明者である (applicant and inventor)
III-I-1	この欄に記載した者は	すべての指定国 (all designated States)
III-I-2	右の指定国についての出願人である。	奥村 幸彦 OKUMURA, Yukihiro 235-0033 日本国 神奈川県 横浜市磯子区 杉田9-2-3-405 9-2-3-405, Sugita Isogo-ku, Yokohama-shi, Kanagawa 235-0033 Japan
III-I-4ja	氏名 (姓名)	
III-I-4en	Name (LAST, First)	
III-I-5ja	あて名:	
III-I-5en	Address:	
III-I-6	国籍 (国名)	日本国 JP
III-I-7	住所 (国名)	日本国 JP



## 特許協力条約に基づく国際出願願書

原本(出願用) - 印刷日時 2000年03月31日 (31.03.2000) 金曜日 16時05分51秒

III-2 III-2-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-2-2	右の指定国についての出願人である。	
III-2-4ja	氏名(姓名)	安藤 英浩
III-2-4en	Name (LAST, First)	ANDO, Hidehiro
III-2-5ja	あて名:	233-0006 日本国 神奈川県 横浜市港南区 芹が谷3-16-5-101
III-2-5en	Address:	3-16-5-101, Serigaya Konan-ku, Yokohama-shi, Kanagawa 233-0006 Japan
III-2-6	国籍(国名)	日本国 JP
III-2-7	住所(国名)	日本国 JP
III-3 III-3-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-3-2	右の指定国についての出願人である。	
III-3-4ja	氏名(姓名)	臼田 昌史
III-3-4en	Name (LAST, First)	USUDA, Masashi
III-3-5ja	あて名:	236-0053 日本国 神奈川県 横浜市金沢区 能見台通18-11-102
III-3-5en	Address:	18-11-102, Noukendaideri Kanazawa-ku, Yokohama-shi, Kanagawa 236-0053 Japan
III-3-6	国籍(国名)	日本国 JP
III-3-7	住所(国名)	日本国 JP
III-4 III-4-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-4-2	右の指定国についての出願人である。	
III-4-4ja	氏名(姓名)	石川 義裕
III-4-4en	Name (LAST, First)	ISHIKAWA, Yoshihiro
III-4-5ja	あて名:	239-0841 日本国 神奈川県 横須賀市野比 4-18-4-503
III-4-5en	Address:	4-18-4-503, Nobi Yokosuka-shi, Kanagawa 239-0841 Japan
III-4-6	国籍(国名)	日本国 JP
III-4-7	住所(国名)	日本国 JP



## 特許協力条約に基づく国際出願願書

原本(出願用) - 印刷日時 2000年03月31日 (31.03.2000) 金曜日 16時05分51秒

III-5 III-5-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor)
III-5-2	右の指定国についての出願人である。	米国のみ (US only)
III-5-4ja III-5-4en III-5-5ja	氏名(姓名) Name (LAST, First) あて名:	尾上 誠蔵 ONOE, Seizo 236-0032 日本国 神奈川県 横浜市金沢区 六浦町1974-21
III-5-5en	Address:	1974-21, Mutsuura-cho Kanazawa-ku, Yokohama-shi, Kanagawa 236-0032 Japan
III-5-6 III-5-7	国籍(国名) 住所(国名)	日本国 JP 日本国 JP
IV-1 IV-1-1ja IV-1-1en IV-1-2ja IV-1-2en IV-1-3 IV-1-4	代理人又は共通の代表者、通知のあて名 下記の者は国際機関において右記のごとく出願人のために行動する。 氏名(姓名) Name (LAST, First) あて名: Address: 電話番号 ファクシミリ番号	代理人 (agent) 谷 義一 TANI, Yoshikazu 107-0052 日本国 東京都 港区 赤坂2丁目6-20 No. 6-20, Akasaka 2-chome Minato-ku, Tokyo 107-0052 Japan 03-3589-1201 03-3589-1206
V V-1	国の指定 広域特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE 及びヨーロッパ特許条約と特許協力条約の締約国である他の国
V-2	国内特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	AU CA CN JP KR SG US
V-5	指定の確認の宣言 出願人は、上記の指定に加えて、規則4.9(b)の規定に基づき、特許協力条約のもとで認められる他の全ての国の指定を行う。ただし、V-6欄に示した国の指定を除く。出願人は、これらの追加される指定が確認を条件としていること、並びに優先日から15月が経過する前にその確認がなされない指定は、この期間の経過時に、出願人によって取り下げられたものとみなされることを宣言する。	
V-6	指定の確認から除かれる国	なし (NONE)

## 特許協力条約に基づく国際出願願書

原本(出願用) - 印刷日時 2000年03月31日 (31.03.2000) 金曜日 16時05分51秒

VI-1	先の国内出願に基づく優先権主張		
VI-1-1	先の出願日	1999年04月02日 (02.04.1999)	
VI-1-2	先の出願番号	平成11年特許願第96804	
VI-1-3	国名	日本国 JP	
VI-2	先の国内出願に基づく優先権主張		
VI-2-1	先の出願日	1999年11月30日 (30.11.1999)	
VI-2-2	先の出願番号	平成11年特許願第340638	
VI-2-3	国名	日本国 JP	
VI-3	先の国内出願に基づく優先権主張		
VI-3-1	先の出願日	2000年03月23日 (23.03.2000)	
VI-3-2	先の出願番号	特願2000-82929	
VI-3-3	国名	日本国 JP	
VI-4	優先権証明書送付の請求 上記の先の出願のうち、右記の番号のものについては、出願書類の認証謄本を作成し国際事務局へ送付することを、受理官庁に対して請求している。	VI-1, VI-2, VI-3	
VII-1	特定された国際調査機関(ISA)	日本国特許庁 (ISA/JP)	
VIII	照合欄	用紙の枚数	添付された電子データ
VIII-1	願書	5	-
VIII-2	明細書	61	-
VIII-3	請求の範囲	31	-
VIII-4	要約	1	pf12317abstract.txt
VIII-5	図面	44	-
VIII-7	合計	142	
VIII-8	添付書類 手数料計算用紙	添付 ✓	添付された電子データ -
VIII-9	別個の記名押印された委任状	✓	-
VIII-16	PCT-EASYディスク	-	フレキシブルディスク
VIII-17	その他	納付する手数料に相当する特許印紙を貼付した書面	-
VIII-17	その他	優先権書類送付請求書	-
VIII-18	要約書とともに提示する図の番号	2	
VIII-19	国際出願の使用言語名:	日本語 (Japanese)	
IX-1	提出者の記名押印		
IX-1-1	氏名(姓名)	谷 義一	

## 受理官庁記入欄

10-1	国際出願として提出された書類の実際の受理の日	
10-2	図面:	
10-2-1	受理された	
10-2-2	不足図面がある	

## 特許協力条約に基づく国際出願願書

原本（出願用） - 印刷日時 2000年03月31日（31.03.2000）金曜日 16時05分51秒

10-3	国際出願として提出された書類を補完する書類又は図面であってその後期間内に提出されたものの実際の受理の日（訂正日）	
10-4	特許協力条約第11条(2)に基づく必要な補完の期間内の受理の日	
10-5	出願人により特定された国際調査機関	ISA/JP
10-6	調査手数料未払いにつき、国際調査機関に調査用写しを送付していない	

## 国際事務局記入欄

11-1	記録原本の受理の日	
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